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PITAVASTATIN REDUCES ELEVATED SOLUBLE LECTIN-LIKE OXIDIZED LDL RECEPTOR-1 LEVELS IN SUBJECTS WITH HYPERCHOLESTEROLEMIA: SUB-ANALYSIS OF KANSAI INVESTIGATION OF STATIN FOR HYPERLIPIDEMIC INTERVENTION IN METABOLISM AND ENDOCRINOLOGY (KISHIMEN)

ACC Poster Contributions

Ernest N. Morial Convention Center, Hall F

Monday, April 04, 2011, 3:30 p.m.-4:45 p.m.

Session Title: Risk Reduction and Rehabilitation: Medical Therapy

Abstract Category: 17. Risk Reduction and Rehabilitation

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Background: Pitavastatin significantly improved lipid profiles and reduced serum high-sensitivity C-reactive protein (hs-CRP) levels in a multi-center and prospective study, KISHIMEN. The aim of this study is to explore the effect of pitavastatin on circulating levels of soluble lectin-like oxidized LDL receptor-1 (sLOX-1), a biomarker for vulnerable atherosclerotic plaques, in a sub-analysis of KISHIMEN.

Methods: This sub-analysis included 84 patients (age: 62.5 +/- 1.4, male: 52.4%, diabetes: 67.5%). Pitavastatin (1-2 mg/day) was administered for 12 months. Serum total cholesterol (TC), low-density lipoprotein cholesterol (LDL-C), high-density lipoprotein cholesterol (HDL-C), non-HDL cholesterol (non-HDL-C), high-sensitivity C-reactive protein (hs-CRP) and sLOX-1 levels were measured.

Results: Pitavastatin significantly lowered LDL-C and non-HDL-C by 27.4% and 26.9% (mean values), respectively. HDL-C levels also were significantly increased by 9.4%. Pitavastatin significantly reduced hs-CRP levels by 28.6% in the whole subjects and by 62.4% in the highest quartile of the baseline hs-CRP levels (median values). Pitavastatin significantly reduced sLOX-1 levels in the highest quartile by 45.3% (median values, $p=0.027$), although it did not significantly affect the sLOX-1 levels in the whole population. Blood sLOX-1 levels did not significantly correlate with hs-CRP, LDL-C, HDL-C or non-HDL-C levels at baseline or after pitavastatin treatment. Percent changes in sLOX-1 did not significantly correlate with those in hs-CRP, LDL-C, HDL-C or non-HDL-C. Presence or absence of diabetes did not significantly affect sLOX-1 values at baseline or after the treatment.

Conclusions: Pitavastatin reduces elevated sLOX-1 levels, independently of improved lipid profiles or hs-CRP levels, in hypercholesterolemic subjects including diabetes.